In the Claims:

1. (Currently amended) A crystal oscillator, comprising:

an oscillation unit comprising a crystal vibrator having a frequency-temperature characteristic with which a resonance frequency changes according to a temperature, and an oscillation circuit unit; and

a heat source unit, which abuts against the crystal vibrator, keeping a temperature of the crystal vibrator higher than a temperature where the crystal vibrator causes abnormal oscillation,

wherein said heat source unit is configured by a power transistor which amplifies an oscillation output.

2. The crystal oscillator according to claim 1, wherein the crystal vibrator is kept at a temperature higher than 0 °C.

3. (Cancelled)

4. (Cancelled)

5. The crystal oscillator according to claim 1, wherein the abnormal oscillation is caused by a micro-jump which occurs in the crystal vibrator.

6. (Currently amended) A crystal oscillator, comprising:

an oscillation unit having a crystal vibrator; and

a heat source unit keeping a temperature of the crystal vibrator higher than a temperature where the crystal vibrator causes abnormal oscillation,

wherein said heat source unit is configured by a power transistor which amplifies an oscillation output.

7. The crystal oscillator according to claim. 6, wherein said heat source unit keeps the crystal vibrator at a temperature higher than 0 °C.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. The crystal oscillator according to claim 6, wherein the abnormal oscillation is caused by a micro-jump which occurs in the crystal vibrator.

12. The crystal oscillator according to claim 6, further comprising a control unit controlling heat generated by said heat source unit based on a temperature of the crystal vibrator.

13. (Currently amended) A crystal oscillator, comprising:

oscillation means having a crystal vibrator; and

heat source means for keeping a temperature of the crystal vibrator higher than a temperature where the crystal vibrator causes abnormal oscillation,

wherein said heat source means is configured by a power transistor which amplifies an oscillation output.

14. (Currently amended) A signal oscillation method preventing abnormal oscillation of an oscillator having a crystal vibrator, comprising:

keeping a temperature of the crystal vibrator higher than a temperature where the crystal vibrator causes abnormal oscillation, using a heat source unit configured by a power transistor which amplifies an oscillation output; and

outputting a signal in a state where the temperature is kept.